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and about 10° E. of the γ *Geminids*. The following are five observations of it :—

Date.		Radiant.	Meteors.	
		° °		
1869	Oct. 8	107 + 12	...	Tupman
1877	8–19	103 + 12	22	Denning
1879	15–20	106 + 12	5	Denning
	...	110 + 14	9	Corder
	18–27	108 + 12	...	Schmidt

The mean is at 106°·8 + 12°·4 and about 5° N.W. of β *Canis Minoris*.

There is another active shower at this epoch about 10° N. of this and near δ *Geminorum*. These several displays require further investigation, with special regard to the positions of their radiants. As to the γ *Geminids* (97° + 15°) I cannot quite understand this shower, as I only noticed it on one occasion (in 1879) and then from a position 4° S. of the mean place of the radiant as given by other observers. It is highly probable that many of the true *Orionids* are implicated in producing it, but it cannot be altogether set aside, the observations being too plentiful and corroborating one another in a way not to be disregarded. γ *Geminorum*, which is close to this radiant, is the brightest star a little east of the *Orionid* centre, and we should naturally expect that, in some cases, the observed tracks of *Orionids* would be estimated as directed precisely from that star, though really emanating from a point 6° west. This might sometimes have led the true *Orionid* radiant to be placed a little too far east and near γ *Geminorum*, but the point is one to be cleared up by further observations.

Bristol: 1895 *October* 30.

Observations of Perrine's Comet (*c* 1895) *made with the Altazimuth at the Royal Observatory, Greenwich.*

(*Communicated by the Astronomer Royal.*)

These observations were made and reduced in a similar manner to those of the Moon with this instrument—viz. transits were taken by the galvanic method over the vertical and horizontal wires for observations of azimuth and zenith distance respectively, and the microscopes and levels were read. A double observation of *Regulus* was obtained on each day to determine the instrumental adjustments.

The following are the individual observations of azimuth and zenith distance :—

G.M.T.					Observed Azimuth.			G.M.T.					Observed Zenith Dist.		
	d	h	m	s	°	′	″		d	h	m	s	°	′	″
1895 Dec.	6	18	7	8	304	19	0·7	Dec.	6	18	23	43	82	1	56·0
		18	21	5	307	11	47·1			18	36	56	80	27	14·1
		18	33	34	309	48	41·4			18	49	41	78	59	41·8
	7	18	48	27	312	39	54·8		7	18	50	36	80	55	55·3

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The above mean times are uncorrected for aberration. The observations are corrected for collimation, level, refraction, and parallax. In computing the latter, log Δ has been taken as 9·9680 on December 6, and 9·9547 on December 7, these values being interpolated from Professor Lamp's ephemeris in *Astr. Nachr.* 3,320, the corrections applied being 9″·4, 9″·4, 9″·3, 9″·7 respectively.

The aberration times were computed with the same value of log Δ, and found to be $7^m\ 42^s$ and $7^m\ 28^s$ on the two days. The tabular R.A. and N.P.D. were computed from Professor Lamp's ephemeris with third differences, after applying these corrections to the above mean times. The tabular azimuths and zenith distances were then computed for each observation, and the deduced apparent errors of the tabular places are as follows :—

G.M.T.	Tabular Azimuth—Observed Azimuth.	G.M.T.	Tabular Z.D.—Observed Z.D.
d h m s	″	d h m s	″
1895 Dec. 6 18 7 8	−40·3	Dec. 6 18 23 43	+66·7
18 21 5	−41·2	18 36 56	+71·0
18 33 34	−38·0	18 49 41	+65·0
7 18 48 27	−61·1	7 18 50 36	+98·7

The following errors of tabular R.A. and N.P.D. were then deduced :—

	Error of Tab. R.A.	Error of Tab. N.P.D.
	s	″
Dec. 6	+4·78	+38·5
7	+7·00	+57·0

Now the tabular R.A. and N.P.D. at the means of the times are as follows :—

G.M.T. (Uncorrected for Aberrn.)	Tab. R.A.	Tab. N.P.D.
d h m s	h m s	° ′ ″
1895 Dec. 6 18 28 41	15 4 32·27	105 37 43·7
7 18 49 31	15 13 52·94	107 17 55·0

Whence are deduced the following observed R.A. and N.P.D. :—

G.M.T. (Uncorrected for Aberrn.)	Apparent R.A.	Apparent N.P.D.
d h m s	h m s	° ′ ″
Dec. 6 18 28 41	15 4 27·49	105 37 5·2
7 18 49 31	15 13 45·94	107 16 58·0

The comet was very bright, and was observed in an illuminated field. On December 6 a distinct tail was seen pointing westward from the nucleus. The comet was looked for on several other mornings, but, owing to clouds, no other observations were obtained.

The observers on December 6 and 7 were Mr. Crommelin and Mr. Hollis respectively.

Royal Observatory, Greenwich :
1895 *December* 13.

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